SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)	
[X] QUARTERLY REPORT PURSUANT TO SECTION 13 ACT OF 1934	3 OR 15(d) OF THE SECURITIES EXCHANGE
For the quarterly period ended March 31, 2004.	
OR	
[] TRANSITION REPORT PURSUANT TO SECTION 13 ACT OF 1934	3 OR 15(d) OF THE SECURITIES EXCHANGE
For the transition period fromto	
Commission File Nun	nber: 0 -30757
Sunrise Telecom (Exact name of Registrant as s	-
Delaware	77-0291197
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
302 Enzo Drive, San Jose (Address of principal executive of	
Registrant's telephone number, include	ding area code: (408) 363-8000
Indicate by check mark whether the Registrant (1) has filed all re Securities Exchange Act of 1934 during the preceding 12 month required to file such reports), and (2) has been subject to such file	s (or for such shorter period that the Registrant was

As of May 07, 2004, there were 50,342,010 shares of the Registrant's Common Stock outstanding, par value \$0.001.

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act.)

Yes [X] No []

Yes [] No [X]

SUNRISE TELECOM INCORPORATED AND SUBSIDIARIES TABLE OF CONTENTS

PART I.	Financial Information	Page Number
Item 1.	Financial Statements (unaudited)	3
	Condensed Consolidated Balance Sheets as of March 31, 2004 and December 31, 2003 Condensed Consolidated Statements of Operations for the Three-Month Periods Ended March 31, 2004 and 2003	3
	Condensed Consolidated Statements of Cash Flows for the Three-Month Periods Ended March 31, 2004 and 2003	5
	Notes to Condensed Consolidated Financial Statements	6
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	14
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	32
Item 4.	Controls and Procedures	33
PART II.	Other Information	
Item 1.	Legal Proceedings	33
Item 2.	Changes in Securities, Use of Proceeds and Issuer Purchases of Equity Securities	33
Item 3.	Defaults Upon Senior Securities	33
Item 4.	Submission of Matters to a Vote of Security Holders	34
Item 5.	Other Information	34
Item 6.	Exhibits and Reports on Form 8-K	34
	Signatures	36
	Exhibit Index	37

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS (unaudited)

SUNRISE TELECOM INCORPORATED AND SUBSIDIARIES CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except share data, unaudited)

	March 31, 2004	De	cember 31, 2003
ASSETS		. ,	
Current assets:			
Cash and cash equivalents\$		\$	39,885
Accounts receivable, net of allowance of \$934 and \$1,380, respectively	8,721		13,112
Inventories	8,140		7,286
Prepaid expenses and other assets	797		577
Deferred tax assets	341		5,604
Total current assets	58,752		66,464
Property and equipment, net	26,359		26,929
Restricted cash	306		106
Marketable securities	2,757		2,133
Goodwill	12,768		12,815
Intangible assets, net	5,133		5,869
Deferred tax assets			1,660
Other assets	681		631
Total assets\$	106,756	\$	116,607
LIABILITIES AND STOCKHOLDERS' EQUITY Current liabilities: Short-term borrowings and current portion of notes payable	316 1,687 7,769 372 327 10,471	\$	382 1,729 8,979 23 660 11,773
Deferred tax liabilities	615		1,093
Deferred revenue	205		178
Other liabilities	4		4
Stockholders' equity: Common stock, \$0.001 par value per share; 175,000,000 shares authorized; 52,052,070 and 51,827,926 shares issued as of March 31, 2004 and December 31, 2003, respectively; 50,300,191 and 50,076,047 shares outstanding as of March 31, 2004 and December 31, 2003, respectively	50		50
Additional paid-in capital	69,223		69,099
Deferred stock-based compensation	_		(267)
Retained earnings	23,295		33,294
Accumulated other comprehensive income	1,892		1,381
Total stockholders' equity	94,460		103,557
Total liabilities and stockholders' equity	106,756	\$	116,607

See accompanying notes to condensed consolidated financial statements.

SUNRISE TELECOM INCORPORATED AND SUBSIDIARIES CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data, unaudited)

	Three Months Ende		
	Mar	ch 31,	
	2004	2003	
Net sales	. /	\$ 11,858 4,503	
Gross profit		7,355	
Gross pront	7,331		
Operating expenses:			
Research and development	3,912	4,206	
Selling and marketing	3,963	4,371	
General and administrative	1,811	2,272	
Total operating expenses	9,686	10,849	
Loss from operations		(3,494)	
Other income, net	53	158	
Loss before income taxes	` '	(3,336)	
Income tax expense (benefit)	7,410	(1,301)	
Net loss	\$ (7,492)	\$ (2,035)	
Loss per share:			
Basic	\$ (0.15)	\$ (0.04)	
Diluted		\$ (0.04)	
5 Tulcu	ψ (0.13)	ψ (0.04)	
Shares used in per share computation:			
Basic	50,164	49,507	
Diluted	50,164	49,507	

See accompanying notes to condensed consolidated financial statements.

SUNRISE TELECOM INCORPORATED AND SUBSIDIARIES CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands, unaudited)

	Three Months Endo March 31,		
	2004	2003	
Cash flows from operating activities: Net loss	.\$ (7,492)	\$ (2,035)	
Depreciation and amortization	1 901	1,915	
Amortization of deferred stock-based compensation		530	
Provision for losses on accounts receivable		(214)	
Loss on disposal of property and equipment		149	
Purchased in-process research and development		12	
Deferred income taxes	. 7,320	(34)	
Changes in operating assets and liabilities (net of acquisition balances):			
Accounts receivable	, , , , , ,	3,290	
Inventories		(1,613)	
Prepaid expenses and other assets	. (279)	17	
Accounts payable and accrued expenses	. (1,236)	807	
Income taxes receivable and payable	. 349	(1,355)	
Deferred revenue	. (307)	(107)	
Net cash provided by operating activities		1,362	
Cash flows from investing activities:			
Sales of marketable securities	. —	1,019	
Capital expenditures		(832)	
Acquisition of business, net of cash acquired		(492)	
Net cash used in investing activities		$\frac{(305)}{(305)}$	
Ç	(====)		
Cash flows from financing activities: Increase in restricted cash	(200)		
	,	(01)	
Payments on notes payable		(81)	
Dividends paid			
Proceeds from exercise of stock options		18	
Net cash used in financing activities	. (2,657)	(63)	
Effect of exchange rate changes on cash and cash equivalents	. 128	226	
Net increase in cash and cash equivalents	. 868	1,220	
Cash and cash equivalents at the beginning of the period	. 39,885	36,440	
Cash and cash equivalents at the end of the period		\$ 37,660	
Supplemental disclosures of cash flow information:			
Cash paid during the period:		± -	
Interest		<u>\$ 7</u>	
Income taxes (received) paid, net of refunds	.\$ (259)	\$ 48	

See accompanying notes to condensed consolidated financial statements.

SUNRISE TELECOM INCORPORATED AND SUBSIDIARIES NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(1) Basis of Presentation and Certain Significant Accounting Policies

Sunrise Telecom Incorporated and its subsidiaries (the "Company") develop, manufacture, and market telecommunications, cable broadband, and Internet network service verification equipment that enables service providers to pre-qualify facilities for services, verify newly installed services, and diagnose problems. The Company sells its products on six continents through a worldwide network of manufacturers, sales representatives, distributors, and direct sales people. The Company has wholly-owned subsidiaries in Norcross, Georgia; Taipei, Taiwan; Modena, Italy; Tokyo, Japan; Seoul, Korea; Anjou, Canada; Geneva, Switzerland; and Stuttgart, Germany. It also has a representative liaison office in Beijing, China and a foreign sales corporation in Barbados.

These condensed consolidated financial statements, including the notes to the condensed consolidated financial statements included herein, have been prepared by the Company, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for complete financial statements. In the opinion of management, these financial statements include all adjustments (consisting only of normal recurring adjustments) necessary for their fair presentation. These financial statements should be read in conjunction with the Company's audited financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2003 filed with the SEC. Certain amounts in the prior period's condensed consolidated financial statements have been reclassified to conform to the current year's presentation.

The interim results presented are not necessarily indicative of results that may be expected for any subsequent interim period or for the full year ending December 31, 2004.

Earnings (Loss) Per Share

Basic earnings (loss) per share ("EPS") is computed using the weighted-average number of common shares outstanding during the period. Diluted EPS is computed using the weighted-average number of common and dilutive potential common equivalent shares outstanding during the period. Potential common equivalent shares consist of common stock issuable upon the exercise of stock options, as calculated using the treasury stock method. For the three months ended March 31, 2004 and 2003, all potential common shares were excluded from the computation of diluted EPS presented in the condensed consolidated statements of operations because their effect would have been anti-dilutive. Specifically, diluted EPS does not include the effect of 4,604,000 and 4,823,000 anti-dilutive potential common equivalent shares for the three months ended March 31, 2004 and 2003, respectively.

The following is a reconciliation of the shares used in the computation of basic and diluted EPS (in thousands):

	Three Months Ended March 31,		
	2004	2003	
Basic EPS—weighted-average number of common shares outstanding Effect of dilutive potential common equivalent shares - stock options	50,164	49,507	
outstanding			
Diluted EPS— weighted-average number of common shares outstanding	50,164	49,507	

Stock-Based Compensation

The Company accounts for employee stock-based compensation using the intrinsic-value method, in accordance with Accounting Principles Board ("APB") Opinion No. 25, *Accounting for Stock-Issued to Employees*. Accordingly, deferred compensation cost is recorded for an employee stock option on the date of its grant to the extent that the fair value of the

underlying share of common stock exceeds the exercise price for the option. During 1999, the Company recorded deferred stock-based compensation cost for stock options issued to employees at exercise prices that were subsequently determined to have been below the fair value of the stock on the date of grant. In addition, the Company recorded deferred stock-based compensation cost for stock options granted to employees of Pro.Tel in the first quarter of 2000. The deferred compensation costs associated with both of these stock option grants has been amortized as a charge against operating results on a straight-line basis over the original four year vesting period of the options. The Company allocated this amortization expense to the departments to which the related employees' services were charged.

If compensation expense for the Company's stock-based compensation plans had been determined in a manner consistent with the fair value approach described in Statement of Financial Accounting Standards ("SFAS") No. 123, Accounting for Stock-Based Compensation, as amended by SFAS No. 148, Accounting for Stock-Based Compensation-Transition and Disclosure-an Amendment of FASB Statement No. 123, the Company's net loss and loss per share, as reported, would have changed to the pro forma amounts indicated below (in thousands, except per share data):

	Three Months Ended			Ended
		Marc	ch 3	1,
	20	04		2003
Net loss, as reported	\$ (7	,492)	\$	(2,035)
Add: Stock-based employee compensation expense included in reported net loss, net of applicable tax effects		267		323
value based method for all awards, net of applicable tax effects		<u>(797</u>)		(577)
Net loss, pro forma	\$ (8	3,022)	\$	(2,289)
Loss per share, as reported				
Basic	\$ ((0.15)	\$	(0.04)
Diluted		0.15)	\$	
Loss per share, pro forma:				
Basic	\$ ((0.16)	\$	(0.05)
Diluted	\$ ((0.16)	\$	(0.05)

The pro forma amounts in the preceding table for the three months ended March 31, 2003 were adjusted for tax effects; the pro forma amounts for the three months ended March 31, 2004 were not adjusted for tax effects. See Note 9, "Income Taxes."

For the purpose of computing pro forma net loss, the fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model. The assumptions used in the model are as follows:

	March 31,		
	2004	2003	
Dividend yield	1.3%	None	
Expected term	5 years	4 years	
Risk-free interest rate	2.91%	2.91%	
Volatility rate	0.7112	0.7053	

(2) Comprehensive Loss

Comprehensive loss comprises net loss and other comprehensive income (loss). Other comprehensive income (loss) includes certain changes in the equity of the Company that are excluded from net loss. The components of the Company's comprehensive loss, net of tax, were as follows (in thousands):

		onths Ended rch 31,
	2004	2003
Net loss	\$ (7,492)	\$ (2,035)
Change in unrealized gain on available-for sale investments, net of tax		
effect	406	(4)
Change in foreign currency translation adjustments	105	218
Total comprehensive loss	\$ (6,981)	\$ (1,821)

(3) Inventories

Inventories consisted of the following (in thousands):

		larch 31, 2004	December 31, 2003		
Raw materials		3,254 3,153	\$	2,429	
Work-in process Finished goods		1,733		2,861 1,996	
	\$	8,140	\$	7,286	

(4) Marketable Securities

Marketable securities at March 31, 2004 and December 31, 2003 consisted of common stock of Top Union Electronics Corp. ("Top Union"), a Taiwan R.O.C. corporation. The Company has classified this investment as an available-for-sale security, which is stated at fair value with the unrealized gain presented as a separate component of equity. At March 31, 2004, the Company revalued the Top Union investment to its fair value of \$2,757,000. This resulted in an unrealized gain of \$624,000 for the three month period then ended, which the Company recorded as other comprehensive income of \$406,000, net of a tax effect of \$218,000. At March 31, 2004, the cumulative unrealized gain on this investment was \$1,709,000. On April 21, 2004, the Company sold 751,000 shares of its Top Union stock, which had a cost basis of \$200,000, for \$614,000, resulting in a realized gain of \$414,000.

The Company determines the appropriate classification of debt and equity securities as trading, available for sale, or held to maturity at the time of purchase and reevaluates this designation at each balance sheet date. Investments classified as available for sale are reported at market value, with unrealized gains and losses, net of tax, reported as a separate component of other comprehensive income (loss) in stockholders' equity. Realized gains and losses on sales of investments and declines in value determined to be other than temporary are included in other income, net in the Company's condensed consolidated statement of operations. Investment securities available for current operations are classified as current assets, and all other investment securities are classified as non-current assets on the Company's condensed consolidated balance sheet.

(5) Goodwill and Other Acquired Intangible Assets

Acquired intangible assets consisted of the following (in thousands):

	March 31, 2004				
_	Gross Carrying Amount	arrying Accumulated			Carrying Amount
Amortized intangible assets:					
Developed technology	\$ 12,302	\$	(8,250)	\$	4,052
Non-compete	888		(548)		340
License	560		(337)		223
Patents	143		(30)		113
Other	112		(21)		91
	\$ 14,005	\$	(9,186)		4,819
Unamortized intangible assets:					
Patents pending					271
Other					43
					314
Intangible assets, net				\$	5,133

	December 31, 2003					
	Gross Carrying Amount	Accumulated Amortization		Net Carryin Amount		
Amortized intangible assets:						
Developed technology\$	12,305	\$	(7,635)	\$	4,670	
Non-compete	1,498		(1,082)		416	
License	560		(291)		269	
Patents	144		(28)		116	
Other	112		(19)		93	
<u>\$</u>	14,619	\$	(9,055)		5,564	
Unamortized intangible assets:						
Patents pending					263	
Other					42	
					305	
Intangible assets, net				\$	5,869	

Aggregate amortization expense for the three months ended March $3\,1$, 2004 and 2003 was \$755,000 and \$878,000, respectively.

The estimated future aggregate amortization expense for acquired intangible assets as of March 31, 2004 is as follows (in thousands):

Nine months ending December 31, 2004\$	2,034
Year ending December 31,	
2005	1,758
2006	823
2007	233
2008	115
2009	109
Thereafter	61
\$	5,133

The changes in the carrying amount of goodwill during the three months ended March 31, 2004 were as follows (in thousands):

Balance at December 31, 2003\$	12,815
Effect of foreign currency translation	(47)
Balance at March 31, 2004\$	12,768

The Company will perform its next annual impairment test of goodwill, as required by SFAS No. 142, *Goodwill and Other Intangible Assets*, during the quarter ending December 31, 2004.

(6) Other Assets

Other assets consisted of the following (in thousands):

	rch 31, 2004	mber 31, 2003
Insurance deposits	430 251	\$ 384 247
	\$ 681	\$ 631

(7) Liability for Product Warranties

Changes in the Company's liability for product warranties, which is part of other accrued expenses, during the three months ended March 31, 2004 and the year ended December 31, 2003 are as follows (in thousands):

_	Balance at Beginning of Period	Warranties Issued	Warranties Settled	Balance at End of Period	
2004	\$ 1,038	\$ 130	\$ (128)	\$ 1,040	
2003	1,306	318	(586)	1,038	

(8) Short-term Borrowings and Notes Payable

As a result of various acquisitions completed during prior years, the Company had nine non-interest bearing notes payable at March 31, 2004. The aggregate outstanding balance on these notes was \$362,000. Notes payable also included an unsecured loan from the Italian government, which bears interest at 2% a year and is to be repaid by semiannual principal payments over an eight year period that began in 2003. At March 31, 2004, the outstanding balance on this loan was \$940,000. The Company had short-term borrowings and other debt totaling \$15,000 at March 31, 2004.

Annual amounts to be repaid under all notes payable are as follows (in thousands):

Nine months ending December 31, 2004\$	253
Year ending December 31,	
2005	203
2006	205
2007	170
2008	135
2009	138
Thereafter	213
\$	1,317

(9) Income Taxes

The Company recorded income tax expense of \$7,410,000 for the three months ended March 31, 2004. Of this amount, \$7,349,000 was the result of recording a valuation allowance against all of the Company's net deferred tax assets in most jurisdictions. The remaining \$61,000 of income tax expense pertains to certain foreign subsidiaries that had taxable income. The expense for recording the valuation allowance is a non-cash item, and the recording of this expense does not imply that the Company owes additional income taxes.

The Company determined the valuation allowance on deferred tax assets in accordance with the provisions of SFAS No. 109, Accounting for Income Taxes, which require that the Company weigh both positive and negative evidence in order to ascertain whether it is more likely than not that deferred tax assets will be realized. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and for the future tax consequences attributable to operating losses and tax credit carryforwards. The ultimate realization of deferred tax assets is dependent on the generation of future taxable income during the periods in which the related temporary differences become deductible. The Company evaluated all significant available positive and negative evidence, including the existence of cumulative net losses in recent periods, benefits that could be realized from available tax strategies, and forecasts of future taxable income, in determining the need for a valuation allowance on its deferred tax assets. At December 31, 2003, the Company forecast having income before income taxes for both the three months ending March 31, 2004 and for the year ending December 31, 2004. Since its actual result for the three months ended March 31, 2004 was a loss before income taxes, this lessened the weight that it assigned to future prospects for returning to consistent profitability. That, combined with cumulative net losses in recent periods, represented sufficient negative evidence that was difficult for positive evidence to overcome under the evaluation guidance of SFAS No. 109, and accordingly, a valuation allowance was recorded against all of the Company's net deferred tax assets in most jurisdictions. The Company intends to maintain this valuation allowance until sufficient positive evidence, such as the resumption of a consistent earnings pattern, exists to support its reversal in accordance with SFAS No. 109.

(10) Segment Information

SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*, establishes standards for the manner in which public companies report information about operating segments, products, services, geographic areas, and major customers in annual and interim financial statements. The method of determining what information to report is

based on the way that management organizes the operating segments within the enterprise for making operating decisions and assessing financial performance.

The Company considers its Chief Executive Officer ("CEO") to be its chief operating decision-maker. The CEO reviews financial information presented on a consolidated basis accompanied by disaggregated information about revenue by geographic region for purposes of making operating decisions and assessing financial performance. The consolidated financial information reviewed by the CEO is the same as the information presented in the accompanying condensed consolidated statements of operations. Therefore, the Company operates in a single operating segment, which encompasses the design, manufacture, and sale of equipment for testing telecommunications, cable broadband, and internet networks.

Revenue information regarding operations in the different geographic regions is as follows (in thousands):

		Three Months Ended March 31,		
	2004		2003	
North America (United States and Canada)	\$ 7,555 3.205	\$	6,664 2,723	
Europe/Africa/Middle East	2,907		2,113	
Latin America	134		358	
<u>.</u>	\$ 13,801	\$	11,858	

Long-lived assets, excluding financial instruments, deferred tax assets, and intangible assets, were located in the following geographic regions (in thousands):

	March 31, 2004	Dec	ember 31, 2003
North America (United States and Canada) \$ Asia/Pacific \$ Europe/Africa/Middle East \$	24,615 1,088 656	\$	25,170 1,042 717
<u>\$</u>	26,359	\$	26,929

Revenue information by product category is as follows (in thousands):

		Three Months Ended March 31,		
	2004	2003		
Wireline access	\$ 7,114	\$ 6,005		
Cable broadband	3,540	3,157		
Fiber optics	2,183	2,334		
Protocol	964	362		
	\$ 13,801	\$ 11,858		

Sales to one customer, SBC Communications Inc., were \$1,863,000, or 13% of the Company's total sales, during the three months ended March 31, 2004. No other single customer accounted for 10% or more of the Company's total sales during this period, and no single customer accounted 10% or more of the Company's total sales during the three months ended March 31, 2003.

(11) Dividend

On January 28, 2004, the Company's Board of Directors declared a cash dividend in the aggregate amount of \$2,506,000 (\$0.05 per share), which was paid on February 20, 2004 to stockholders of record as of February 10, 2004.

(12) Litigation

On January 9, 2004, the Company, with its subsidiary Luciol Instruments SA ("Luciol") and a former owner of Luciol, settled an intellectual property dispute over certain technology for testing fiber optic communication networks. In the settlement, the Company agreed to pay \$500,000 to certain other parties in order to settle all their claims to the intellectual property. The former owners of Luciol will reimburse \$300,000 of this amount, in accordance with the terms of their employment agreements with the Company, and \$200,000 is covered by a provision for litigation that the Company established at the time of the Luciol acquisition. As a result, this settlement had no effect on the Company's financial condition or results of operations as of and for the three months ended March 31, 2004.

On March 31, 2004, Acterna, LLC filed a lawsuit against the Company and Consultronics, Ltd. and Consultronics, Inc. in the United States District Court for the District of Maryland. Acterna alleges that the Company's SunSet xDSL and SunSet MTT products infringe their United States Patent Nos. 6,064,721 (the "'721 patent"), 6,385,300 (the "'300 patent"), and 6,590,963 (the "'963 patent") and that the Company's STT product infringes their United States Patent No. 5,511,108 (the "'108 patent"). Acterna also alleges that the Consultronics CoLT 450 product infringes their '721 patent. Acterna seeks injunctive relief, unspecified damages, and attorneys' fees and costs. The Company believes that the lawsuit against it is without merit, and it intends to vigorously defend itself against the claims being made against it. The Company is presently unable to estimate any potential future losses or costs to it resulting from this lawsuit.

On April 23, 2004, the Company filed a lawsuit against Acterna LLC in the United States District Court for the Northern District of California. The lawsuit alleges that Acterna's ANT-5 SDH Access Tester and its ANT-20 Advanced Network Tester infringe the Company's United States Patent No. 5,619,489 (the "'489 patent"). The Company seeks injunctive relief, unspecified damages, and attorneys' fees and costs. The Company also seeks declaratory judgment that its products do not infringe the '721 patent, the '300 patent, the '963 patent, and the '108 patent, and the '108 patent are invalid; and that the '721 patent, the '963 patent, the '963 patent, and the '108 patent are unenforceable.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

In addition to the other information in this report, certain statements in the following Management's Discussion and Analysis of Financial Condition and Results of Operation (MD&A) are forward-looking statements. Words such as "expects," "anticipates," "estimates," "intends", "plans", "believes", "may", "might", and similar words and expressions are intended to identify forward-looking statements. In particular, our stated expectation of our revenue for the quarter ending June 30, 2004 is a forward-looking statement. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected. Such risks and uncertainties include, but are not necessarily limited to, those set forth below under "Risk Factors Affecting Future Operating Results." The following discussion should be read in conjunction with our condensed consolidated financial statements and notes thereto included elsewhere in this report.

Overview

We develop, manufacture, and market telecommunications, cable broadband, and Internet network service verification equipment that enables service providers to pre-qualify facilities for services, verify newly installed services, and diagnose problems. Our products offer broad functionality, leading edge technology, and compact size. The types of telecommunications services that our products can test include wireline access services (including DSL), fiber optics, cable broadband networks, and signaling networks. We design our products to maximize technicians' effectiveness in the field and to provide realistic network simulations for equipment manufacturers to test their products. Our customers include incumbent local exchange carriers, cable companies, competitive local exchange carriers, and other service providers, network infrastructure suppliers, and installers throughout North America, Latin America, Europe, Africa, the Middle East, and the Asia/Pacific region.

For the past three years, many companies in the telecommunications industry throughout the world have been experiencing decreased profitability resulting from a number of factors. The most significant of these factors are the overbuilding of certain portions of the telecommunications infrastructure during the late 1990s and the increased overlap between the previously separate businesses of wireless, local telephone services, and cable TV service, which has led to increased competition. We have been affected by this downturn, and after nine consecutive years of profitability, we were unprofitable during each of the years ended December 31, 2002 and 2003 and during the three months ended March 31, 2004. However, through conservative financial management, we continued to generate positive cash flows from operating activities during this time, and we ended the first quarter of 2004 with a strong cash position and very low debt levels. We compete in the challenging telecommunications equipment market by pursuing a strategy of offering products that address the needs of a diverse group of telecommunications service providers and by investing heavily in research and development to create high-quality products that address evolving telecommunications technologies in innovative ways. We also continuously work to minimize operating costs while executing this strategy.

We assess the overall performance of our business primarily through the use of financial metrics. Management considers several metrics to be particularly important when assessing past business success and projecting future performance. One such metric is our maintenance of high levels of working capital and low levels of debt. This is enabled by the generation of cash flows from our operating activities and is also affected by investing and financing decisions, such as capital investments, business acquisitions, dividends, and stock buybacks. Ultimately, our ability to consistently generate substantial positive cash flows is the primary indicator of our business's success and is imperative for our business's survival. These metrics are discussed in the "Liquidity and Capital Resources" section of this MD&A. Another important metric is profitability. In general, profitability provides an indication of our ability to generate present and future cash flows from our operating activities, although profitability can also be influenced by non-cash items. The key components of our profitability are net sales, cost of sales, and operating expenses. See the discussion directly below and the "Comparison of Three-Month Periods Ended March 31, 2004 and 2003" section of this MD&A.

Our net loss for the three months ended March 31, 2004, calculated in accordance with accounting principles generally accepted in the United States, was \$7.5 million. This amount included the effect of a charge for placing a valuation allowance on our net deferred tax assets for most jurisdictions. This was a non-cash charge and does not imply that we owe additional income taxes, but the charge increased our net loss by \$7.3 million from what it otherwise would have

been. Without this non-cash charge, our net loss would have been \$0.2 million. We believe that it is important to consider what our net loss would have been without this charge, because we have not previously had any similar charges and believe that we are unlikely to have any similar charges in the future. Therefore, considering our operating results without this charge may provide a more meaningful indication of our future prospects than the presentation of our operating results that includes this charge. This non-cash charge is discussed further in the "Comparison of Three-Month Periods Ended March 31, 2004 and 2003" section of this MD&A.

We see some signs of improvement in our financial performance. Our net sales for the three months ended March 31, 2004 exceeded net sales for the same period during 2003. Our backlog at March 31, 2004 was \$5.9 million, only a \$0.5 million decrease from backlog of \$6.4 million at December 31, 2003. Based on the March 31 backlog, emerging order flow patterns, and usual seasonality, we expect sales for the three months ending June 30, 2004 to be between \$12.0 million and \$16.0 million. If this forecast level of sales is achieved, it would represent the third consecutive quarter in which our sales were higher than in the same quarter of the previous year. Also, during the three months ended March 31, 2004, we had our second straight quarterly period in which our income or loss from operations was improved over that in the same quarter of the previous year; income from operations during the three months ended December 31, 2003 was \$2.8 million, compared with a loss from operations of \$0.1 million during the same period of 2002, and loss from operations during the three months ended March 31, 2004 was \$0.1 million, compared with a loss from operations of \$3.5 million during the same period of 2003.

Sources of Net Sales

We generate our cash flows primarily from selling telecommunications network testing equipment, and our future cash flows are largely dependent on our continuing ability to sell our products and collect cash from our customers for those sales. We consider investment in research and development and selling and marketing activities and the continued development of new products to be critical to our ability to generate strong sales volume in the future, and we continually seek to offer new products to meet our customer's needs. Notably, in the first quarter of 2004, we introduced modules for our hand-held SunSet MTT product line, which tests a variety of types of networks, and a new version of our AT2500RQ cable broadband testing product.

We sell our products predominantly to large telecommunications service providers. These types of customers generally commit significant resources to the evaluation of our and our competitors' products and require each vendor to expend substantial time, effort, and money educating them about the value of the proposed solutions before they agree to purchase any amount of products. Delays associated with potential customers' internal approval and contracting procedures, procurement practices, and testing and acceptance processes are common and may cause potential sales to be delayed or foregone. As a result of these and related factors, the sales cycle of new products for large customers typically ranges from six to twenty-four months. During the past three years, we have observed a significant decline in capital spending in the telecommunications industry, which may lengthen the sales cycle further. Substantially all of our sales are made on the basis of purchase orders rather than long-term agreements or requirements contracts. As a result, we commit resources to the development and production of products without having received advance or long-term purchase commitments from customers. We anticipate that our operating results for any given period will continue to be dependent on purchase orders, which can be delayed or cancelled by our customers without penalty.

Historically, a significant portion of our net sales has come from a small number of relatively large orders from a limited number of customers. During the three months ended March 31, 2004, sales to one customer, SBC Communications Inc., were \$1.9 million, or 13% of our total sales. No other single customer accounted for 10% or more of our sales during this period, and no single customer accounted for 10% or more of our total sales during the first three months of 2003. Overall, we anticipate that our operating results for a given period will be dependent on a small number of customers.

Our sales have been seasonal in nature and tied to the buying patterns of our customers. Prior to 2000, the largest volume of quarterly sales had usually been during the last calendar quarter of the year, as customers spent the unused portions of their annual budgets. In 2000 and 2001, there was a change in this fourth quarter seasonality as our customers had fewer remaining unused budget dollars available to generate an increase in the fourth quarter seasonal sales. In 2002 and 2003, however, we saw a return to the pre-2000 pattern, with increased sales in the fourth quarter. Typically, our sales for the first quarter are substantially below sales for the preceding fourth quarter, as our customers usually do not release and begin spending on their annual budgets until late in the first quarter. This pattern continued during the first quarter of 2004. Market conditions in our industry are currently too uncertain for us to predict whether this pattern will continue. We expect that our quarterly operating results may fluctuate significantly and will be difficult to predict due to the

lengthy and unpredictable buying patterns of our customers, the degree to which our customers allocate and spend their yearly budgets, and the timing of our customers' budget processes. See "Risk Factors Affecting Future Operating Results—Quarterly Fluctuations."

Currently, competition in the telecommunications and cable equipment market is intense and is characterized by declining prices due to increased competition and new products and due to reduced customer demand. Because of these market conditions and potential pricing pressures from large customers in the future, we expect that the average selling price for our products will decline over time. If we fail to reduce our production costs accordingly or fail to introduce higher margin new products, there will be a corresponding decline in our gross margin percentage. See "Risk Factors Affecting Future Operating Results—Competition" and "—Risks of the Telecommunications Industry."

A substantial portion of our net sales have come from customers located outside of the United States, and we believe that future growth may depend on growth of our sales in international markets. These sales are primarily dollar denominated, which limits our financial exposure to currency exchange rate fluctuations. Currently, we have a manufacturing facility in Taipei, Taiwan; a manufacturing, research, development, and sales facility in Modena, Italy; a manufacturing, research, development, and sales facility in Anjou, Canada; and a research and development facility in Geneva, Switzerland. We also have a representative liaison office in Beijing, China, and sales offices in Tokyo, Japan; Seoul, Korea; Stuttgart, Germany; and Barbados.

We do have a small amount of sales denominated in Euros and the Canadian dollar and have, in prior years used derivative financial instruments to hedge foreign exchange risks. At March 31, 2004, we had no derivative financial instruments. To date, foreign exchange exposure from sales has not been material to our operations. We also have been exposed to fluctuations in non-U.S. currency exchange rates related to our manufacturing activities in Taiwan. In the future, a growing portion of international sales may be denominated in currencies other than U.S. dollars, thereby exposing us to gains and losses on non-U.S. currency transactions. We may choose to limit this exposure by using hedging strategies. See "Risk Factors Affecting Future Operating Results—Risks of International Operations."

Cost of Sales

Our cost of sales consists primarily of the following:

- direct material costs of product components, manuals, product documentation, and product accessories;
- production wages, taxes, and benefits;
- allocated production overhead costs;
- warranty costs;
- the costs of board level assembly by third party contract manufacturers; and
- scrapped and reserved material originally purchased for use in the production process.

We recognize direct cost of sales, wages, taxes, benefits, and allocated overhead costs at the same time we recognize revenue for products sold. We expense scrapped materials as incurred.

Our industry is characterized by limited sources and long lead times for the materials and components that we use to manufacture our products. If we underestimate our requirements, we may have inadequate inventory, resulting in additional product costs for expediting delivery of long lead time components. An increase in the cost of components could result in lower margins. Additionally, these long lead times have in the past, and may in the future, cause us to purchase larger quantities of some parts than needed to meet firm production requirements, increasing our investment in inventory and the risk of the parts' obsolescence. Any subsequent write-off of inventory could result in lower margins. See "Risk Factors Affecting Future Operating Results—Dependence on Sole and Single Source Suppliers."

Operating Costs

We classify our operating expenses into three general categories: research and development, selling and marketing, and general and administrative. Our operating expenses include stock-based compensation expense and amortization of certain intangible assets. We classify charges to the research and development, selling and marketing, and general and administrative expense categories based on the nature of the expenditures. Although each of these three categories includes expenses that are unique to the category type, each category also includes commonly occurring expenditures that typically relate to all of the categories, such as salaries, amortization of stock-based compensation, employee benefits, travel and entertainment costs, communications costs, rent and facilities costs, and third party professional service fees. The selling and marketing category of operating expenses includes expenditures specific to our sales and marketing groups, such as commissions, public relations and advertising, trade shows, and marketing materials. The research and development category of operating expenses includes expenditures specific to the research and development group, such as design and prototyping costs. The general and administrative category of operating expenses includes expenditures specific to the general and administrative group, such as legal and professional fees and amortization of identifiable intangible assets.

We allocate the total cost of overhead and facilities to each of the functional areas that use overhead and facilities based upon the square footage of facilities used or the headcount of each of these areas. These allocated charges include facility rent, utilities, communications charges, and depreciation expenses for our building, equipment, and office furniture.

During the three months ended March 31, 2004 and 2003, we recorded amortization of deferred stock-based compensation expense of \$0.3 million and \$0.5 million, respectively, related to the grant of stock options at exercise prices subsequently deemed to be below fair market value. Compensation expense related to these options, which were granted in 1999 and the first quarter of 2000, has been amortized on a straight-line basis over the respective four-year vesting periods of the options and charged to the departments of the employees who received these option grants. During the first three months of 2004, we allocated amortization of deferred stock-based compensation expense of \$0.1 million to research and development expense, \$0.1 million to selling and marketing expense, and \$0.1 million to general and administrative expense of \$0.1 million to cost of sales, \$0.2 million to research and development expense, \$0.1 million to selling and marketing expense, and \$0.1 million to general and administrative expense. At March 31, 2004, no further deferred stock-based compensation expense remained to be amortized.

Also, during the three months ended March 31, 2004 and 2003, we charged approximately \$0.8 million and \$0.9 million, respectively, to general and administrative expense for amortization of intangible assets obtained through business acquisitions.

Litigation

On January 9, 2004, we, with our subsidiary Luciol and a former owner of Luciol, settled an intellectual property dispute over certain technology for testing fiber optic communication networks. In the settlement, we agreed to pay \$500,000 to certain other parties in order to settle all their claims to the intellectual property. The former owners of Luciol will reimburse \$300,000 of this amount, in accordance with the terms of their employment agreements with us, and \$200,000 is covered by a provision for litigation that we established at the time of the Luciol acquisition. As a result, this settlement had no effect on our financial condition or results of operations as of and for the three months ended March 31, 2004.

On March 31, 2004, Acterna, LLC ("Acterna") filed a lawsuit against us in the United States District Court for the District of Maryland alleging that our SunSet xDSL, SunSet MTT, and STT products infringe certain patents owned by Acterna. We believe that this lawsuit is without merit, and we intend to vigorously defend against the claims being made against us. However, we cannot assure you as to the outcome of this lawsuit, nor can we presently estimate any potential losses or costs to us. On April 23, 2004, we filed a lawsuit against Acterna in the United States District Court for the Northern District of California asserting that two of Acterna's products infringe patents owned by us and also seeking judgments against the validity and enforceability of Acterna's patents involved in the March 31, 2004 lawsuit. See "Part II—Other Information: Item 1. Legal Proceedings". See also "Risk Factors Affecting Future Operating Results—Intellectual Property Risks" in this MD&A.

Dividend

On January 28, 2004, our Board of Directors declared a cash dividend in the aggregate amount of \$2.5 million (\$0.05 per share), which was paid on February 20, 2004 to stockholders of record as of February 10, 2004.

Results of Operations

Comparison of Three-Month Periods Ended March 31, 2004 and 2003

Net Sales. Net sales increased 16%, to \$13.8 million during the first quarter of 2004 from \$11.9 million during the same quarter of 2003. Sales of our wire line access products increased by \$1.1 million, sales of our cable broadband products increased by \$0.3 million, and sales of our protocol products increased by \$0.6 million. These increases were partially offset by a \$0.1 million decrease in sales of our fiber optics products. The increase in wireline access product sales was generally driven by demand for our SunSet MTT and SunSet E20 products, and the increase in protocol product sales is due to sales of our NeTracker and 3G Master products. Cable broadband product sales, particularly sales of our AT2500R system, increased from a difficult first quarter in 2003. The small decrease in fiber optics product sales reflects normal fluctuations in customers' capital spending patterns. During the three months ended March 31, 2004, our revenues were not significantly affected by changes in prices.

Sales during the first quarter of 2004 increased \$0.9 million, or 13%, in North America, \$0.5 million, or 18%, in Asia, and \$0.8 million, or 38%, in Europe/Africa/Middle East, compared with the same quarter in 2003. These increases were partially offset by a sales decrease of \$0.3 million, or 63%, in Latin America. The increase in North American sales was primarily due to increased sales of our wireline access and protocol products, which were partially offset by decreased sales of our fiber optics and cable broadband products. Our growth in Asia reflects the results of our ongoing development of distribution channels in this region, leading to increased sales of wireline access, cable broadband, and protocol products, and our growth in Europe is the result of ongoing development of distribution channels in that region, as well, leading to growth in sales of wireline access, fiber optics, and protocol products. Sales to Latin America remain a small part of our business; small changes in order volume from this region can represent large percentage fluctuations. International sales, including sales to Canada, increased to \$6.9 million, or 50% of total net sales, in the first quarter of 2004, from \$5.4 million, or 45% of net sales in the same quarter in 2003.

Cost of Sales. Cost of sales decreased 6% to \$4.2 million during the first quarter of 2004, from \$4.5 million during the same quarter of 2003. Cost of sales represented 31% and 38% of net sales during the first quarters of 2004 and 2003, respectively. Two main factors contributed to the decrease in cost of sales as a percentage of sales. First, a larger portion of our total sales came from the sales of plug-in modules. Many of our products are now designed as standardized chassis, for which customers may choose to purchase from a variety of plug-in modules that meet their varying testing needs. These modules generally carry higher margins than the chassis themselves and than our non-modular products. Second, we have seen a significant increase in the proportion of our products manufactured at our plant in Taiwan, which is our lowest cost production facility. We have been making significant investments in this facility, and during January 2004, it became ISO 9001 certified, further improving its capability to be a centralized manufacturer for many of our products.

Research and Development. Research and development expenses decreased 7% to \$3.9 million during the first quarter of 2004, from \$4.2 million during the same quarter of 2003. This decrease is primarily due to a \$0.3 million decrease in payroll costs, which resulted from reduced bonus expenses and decreased stock-based compensation expense. Research and development expenses were 28% and 35% of net sales during the first quarters of 2004 and 2003, respectively. Research and development expenses tend to fluctuate from period to period, depending on requirements at the various stages of our product development cycles. Through our research and development activities, we are attempting to balance two conflicting strategic priorities. The first is to tightly control costs in response to sales volume that has significantly decreased over the last three years. The second is to continue to develop products that address customer needs in a rapidly changing and very competitive market. In any given time period, research and development expenses may increase in absolute dollars and/or as a percentage of sales, as we continue to invest in product development and expand our product lines.

Selling and marketing. Selling and marketing expenses decreased 9% to \$4.0 million during the first quarter of 2004, from \$4.4 million during the same quarter of 2003. This decrease is the combined effect of small reductions in payroll,

commission, postage and freight, advertising placement, and service expenses. Selling and marketing expenses were 29% and 37% of net sales during the first quarters of 2004 and 2003, respectively.

General and Administrative. General and administrative expenses decreased 20% to \$1.8 million during the first quarter of 2004, from \$2.3 million during the same quarter of 2003. The decrease in general and administrative expense resulted primarily from a net \$0.2 million reversal in our allowance for doubtful accounts, a \$0.2 million decrease in amortization of intangible assets, and a \$0.1 million decrease in property taxes. The reduction in our allowance for doubtful accounts is the result of our ability to collect more of our accounts receivable than we had originally forecast based on our historical collection experience. The reduction in amortization of intangible assets is the result of completing the amortization of intangible assets acquired in 1999 and 2000, and the decrease in property taxes is primarily the result of a reduction in assessed value for property tax purposes on our corporate headquarters building, which we own. General and administrative expenses were 13% and 19% of net sales during the first quarters of 2004 and 2003, respectively. General and administrative expenses may increase in absolute dollars in future quarters, as we expect legal expenditures to increase as a result of recent litigation. See the discussion of our litigation in the "Overview" section of this MD&A.

Other Income, Net. Other income, net primarily represents interest earned on cash and investment balances and gains and losses on assets, liabilities, and transactions denominated in foreign currencies. Other income (expense), net decreased 66%, to \$0.1 million during the first quarter of 2004, from \$0.2 million during the same quarter of 2003. This was primarily due to a reduction in foreign exchange gains.

Income Taxes Expense (Benefit). Income tax expense (benefit) consists primarily of federal, state, and international income taxes. We recorded income tax expense of \$7.4 million during the first quarter of 2004 and an income tax benefit of \$1.3 million during the same quarter of 2003. Of the first quarter 2004 expense, \$7.3 million was the result of recording a valuation allowance against all of our net deferred tax assets in most jurisdictions. The remaining \$0.1 million of income tax expense pertained to certain foreign subsidiaries that had taxable income. Our income tax benefit during the first quarter of 2003 was the result of applying a 39% effective tax rate to our net loss before income taxes.

We determined the valuation allowance on deferred tax assets in accordance with the provisions of Statement of Financial Accounting Standards ("SFAS") No. 109, Accounting for Income Taxes, which require that we weigh both positive and negative evidence in order to ascertain whether it is more likely than not that deferred tax assets will be realized. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and for the future tax consequences attributable to operating losses and tax credit carryforwards. The ultimate realization of deferred tax assets is dependent on the generation of future taxable income during the periods in which the related temporary differences become deductible. We evaluated all significant available positive and negative evidence, including the existence of cumulative net losses in recent periods, benefits that could be realized from available tax strategies, and forecasts of future taxable income, in determining the need for a valuation allowance on our deferred tax assets. At December 31, 2003, we forecast having a small income before income taxes for both the three months ending March 31, 2004 and for the year ending December 31, 2004. Since our actual result for the three months ended March 31, 2004 was a small loss before income taxes, this lessened the weight that we assigned to future prospects for returning to consistent profitability. That, combined with cumulative net losses in recent periods, represented sufficient negative evidence that was difficult for positive evidence to overcome under the evaluation guidance of SFAS No. 109, and accordingly, a valuation allowance was recorded against all of our net deferred tax assets in most jurisdictions. We intend to maintain this valuation allowance until sufficient positive evidence, such as the resumption of a consistent earnings pattern, exists to support its reversal in accordance with SFAS No. 109. If some or all of the valuation allowance were reversed, our statement of operations for the period in which the reversal occurred would include an income tax benefit for the amount that was reversed, in addition to the effect of any changes in deferred tax assets and liabilities occurring during that period. Until such time, we will not record any significant tax benefits on future operating losses.

Liquidity and Capital Resources

Cash Requirements and Capital Resources

As of March 31, 2004 and December 31, 2003, we had working capital of \$48.3 million and \$54.7 million, respectively, and cash and cash equivalents of \$40.8 million and \$39.9 million, respectively. We had \$2.8 million and \$2.1 million, respectively, in investments in marketable securities that consist entirely of the common stock of Top Union Electronics Corp., a Taiwan R.O.C. Company. These securities are considered to be available-for-sale, and accordingly we value them at their fair value. We do not consider this to be a liquid investment, and therefore classify it as a non-current asset.

We have generated positive cash flows from our operating activities every year since 1992. We believe that current cash balances and future cash flows from operations will be sufficient to meet our anticipated cash needs for our operations, complete needed business projects, achieve our plans and objectives, meet financial commitments, meet working capital requirements, make capital expenditures, and fund other activities well beyond the next 12 months. However, large acquisitions of complementary businesses, products, or technologies, or material joint ventures could require us to obtain additional equity or debt financing. We cannot assure you that such additional financing would be available on acceptable terms, if at all.

Sources and Uses of Cash

In general, we have financed our operations and capital expenditures primarily using cash flows generated by our operating activities, and we foresee continuing to rely on cash flows from our operating activities and existing cash resources to fund our business activities during at least the next 12 months.

Cash provided by operating activities was \$3.8 million during the three months ended March 31, 2004, compared with \$1.4 million during the same period of 2003. Our condensed consolidated statement of cash flows provides a reconciliation of the net losses that we incurred to cash provided by operating activities during the respective periods. The following discussion describes the changes in gross cash flows for operating activities between the three months ended March 31, 2004 and 2003. The \$2.4 million increase in cash provided by operating activities was primarily due to a \$3.4 million increase in cash collected from customers, and it was partially offset by a \$1.1 million increase in cash paid to suppliers. The increase in cash collected from customers is attributable to our increased sales during the three-month periods ended March 31, 2004 and December 31, 2003 over the three-month periods ended March 31, 2003 and December 31, 2002. The increase in cash paid to suppliers was primarily in support of these increased sales. The remaining \$0.1 million of the increase in cash provided by operating activities was the net effect of a \$0.4 million increase in net cash refunded for income taxes, less a \$0.1 million increase in cash paid to employees and a \$0.2 million decrease in interest and other cash flows received. In general, our ability to continue to generate positive cash flows from operations will depend on our ability to generate and collect cash from future sales, while maintaining a cost structure lower than those sales amounts. Therefore, sales volume is by far the most significant uncertainty in our ability to generate cash flow from operations.

Cash used in investing activities was \$0.4 million during the three months ended March 31, 2004, which is consistent with the same period of 2003. During the first three months of 2004, the only significant investing activity was \$0.4 million of capital expenditures. During the first three months of 2003, capital expenditures were \$0.8 million, and we spent \$0.5 million for the acquisition of GIE GmbH. Partially offsetting these expenditures was \$1.0 million received from the sale of marketable securities. As of March 31, 2004, we had no plans for large capital expenditures outside the usual course of those needed for our ongoing production, research and development, and selling and marketing activities.

Cash used in financing activities was \$2.7 million during the three months ended March 31, 2004, compared with \$0.1 million during the same period of 2003. During the first three months of 2004, the primary financing activities that used cash were cash dividends of \$2.5 million, a \$0.2 million increase in restricted cash, and the repayment of notes payable of \$0.1 million. The primary financing activity that provided cash was employees exercising stock options for \$0.1 million. During the first three months of 2003, \$0.1 million of borrowing under notes payable was repaid. In January 2004, our Board of Directors announced plans to institute an annual dividend payment, and the year 2004 dividend was paid during February.

Our outstanding debt at March 31, 2004 consisted primarily of a \$0.9 million loan from the Italian government for research and development use that is payable in semi-annual payments starting in the second half of 2003 and ending in

2011, and nine notes payable, related to acquisitions, totaling \$0.4 million that are being paid in quarterly installments ending in 2007. We have not used off-balance sheet financing arrangements, issued or purchased derivative instruments linked to our stock, or used our stock as a form of liquidity. We do not believe that there are any known or reasonably likely changes in credit ratings or ratings outlook, or an inability to achieve such changes, which would have any significant impact on our operations. We are not subject to any debt covenants that we believe might have a material impact on our business.

Debt Instruments, Guarantees, and Related Covenants

We have low levels of debt, and our operating, financing, and investing activities are not subject to any significant constraints related to outstanding debt, guarantees, or other contingent obligations. We are not, and during at least the next 12 months are not reasonably likely to be, in breach of debt covenants, and we are not subject to any significant debt covenants that may limit our ability to borrow additional funds or issue equity securities.

Critical Accounting Policies

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires us to make estimates, assumptions, and judgments that affect the amounts reported in our condensed consolidated financial statements and the accompanying notes. We base our estimates on historical experience and various other assumptions that we believe to be reasonable. Although these estimates are based on our present best knowledge of the future impact of current events and actions, actual results may differ from these estimates, assumptions, and judgments.

We consider "critical" those accounting policies that require our most subjective or complex judgments, which often result from a need to make estimates about the effect of matters that are inherently uncertain, and that are among the most important of our accounting policies to the portrayal of our financial condition and results of operations. These critical accounting policies are the determination of our allowance for doubtful accounts receivable, valuation of excess and obsolete inventory, valuation of goodwill and other intangible assets, accounting for the liability for product warranties, deferred income tax assets and liabilities, and revenue recognition.

Allowance for Doubtful Accounts Receivable

We determine our allowance for doubtful accounts receivable by making our best estimate considering our historical accounts receivable collection experience and the information that we have about the current status of our accounts receivable balances. If future conditions cause our collection experience to change or if we later obtain different information about the status of any or all of our accounts receivable, additional allowances for doubtful accounts receivable may be required. We charge provisions for doubtful accounts receivable to general and administrative expenses on our statement of operations.

Valuation of Excess and Obsolete Inventory

We determine the valuation of excess and obsolete inventory by making our best estimate considering the current quantities of inventory on hand and our forecast of the need for this inventory to support future sales of our products. We often have only limited information on which to base our forecasts, and if future sales differ from these forecasts, the valuation of excess and obsolete inventory may change. We charge provisions for excess and obsolete inventory to cost of sales on our statement of operations.

Valuation of Goodwill and Other Intangible Assets

We evaluate the valuation of goodwill in the manner prescribed by SFAS No. 142, *Goodwill and Other Intangible Assets*. As required by that standard, we test goodwill for impairment annually, during our fourth fiscal quarter. We would also test goodwill for impairment if certain events or changes in circumstances stipulated by SFAS No. 142 were to occur. SFAS No. 142 prescribes a two-step process for the impairment testing of goodwill. The first screens for impairment by comparing the fair value of our reporting unit, which we consider to be the market capitalization of our entire telecommunications testing equipment business, to its carrying value. If the carrying value were to exceed the fair

value, the second step of the process would occur. In the second step, we would recognize an impairment for the excess of the carrying value, if any, of our goodwill over its implied fair value. The implied fair value of our goodwill would be the excess of our reporting unit's total fair value over the combined net fair values of its individual assets and liabilities. Based on the annual test for impairment performed during the fourth quarter of 2003, goodwill was determined not to be impaired, and no subsequent indicators of impairment have been noted.

We evaluate the valuation of intangible assets other than goodwill in the manner prescribed by SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. As required by that standard, we monitor events and changes in circumstances that could indicate that the carrying amounts of an intangible asset may not be recoverable. These events and circumstances include a significant change in how we use the asset, significant changes in legal factors or the business climate that could affect the asset's value, and current period operating or cash flow losses combined with a history of such losses or a forecast of continuing losses associated with the use of the asset. If such an event or change in circumstances were to occur, we would assess the recoverability of the intangible asset by determining whether its carrying value would be recovered through undiscounted expected future cash flows. If the carrying value of the asset were to exceed the undiscounted expected future cash flows, we would recognize an impairment for the excess of the carrying value over the asset's fair value.

Product Warranties

We offer a three-year warranty covering parts and labor on our wireline access products and fiber optic products sold in the United States, and generally offer a one-year warranty covering parts and labor for our products sold in all other countries, with the option to purchase a two-year extended warranty. Our cable broadband and protocol products are covered by a one-year warranty. We are also subject to laws and regulations in various countries in which we sell regarding vendor obligations to ensure product performance. At the time we recognize revenue from a product's sale, we determine the reserve for the future cost of meeting our obligations under the standard warranties and product performance laws and regulations by considering our historical experience with the costs of meeting such obligations. If the future costs of meeting these obligations differ from the historical experience, additional reserves for warranty obligations may be required. We charge provisions for future warranty costs to cost of sales on our statement of operations.

Deferred Income Tax Assets and Liabilities

We account for income taxes using the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis and for the future tax consequences attributable to operating loss and tax credit carryforwards. In assessing the recoverability of deferred tax assets, we consider whether it is more likely than not that all or some portion of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent on the generation of future taxable income during the periods in which the related temporary differences become deductible. If we obtain information that causes our forecast of future taxable income to change or if taxable income differs from our forecast, we may have to revise the carrying value of our deferred tax assets, which would affect our net income in the period in which the change occurs. The ultimate realization of certain other deferred tax assets is dependent on our ability to carry forward or back operating losses and tax credits. If changes in the tax laws occur that inhibit our ability to carry forward or back operating losses or tax credits, we will recognize the effect on our deferred tax assets in the results of operations of the period that includes the enactment date of the change. Furthermore, we measure our deferred tax assets and liabilities using the enacted tax laws expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. If tax laws change, we will recognize the effect on our deferred tax assets and liabilities in the results of operations of the period that includes the enactment date of the change. As discussed in the "Results of Operations" section of this MD&A, during the three months ended March 31, 2004, we recorded a \$7.3 million charge to establish a valuation allowance against all of our net deferred tax assets in most jurisdictions.

Revenue Recognition

We recognize revenue from a customer order when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred, the price is fixed or determinable, and collectibility is reasonably assured. For product sales, we consider delivery to have occurred when title and risk of loss have been transferred to the customer,

which is usually at the time that the product has been picked up by a common carrier. For services, we consider delivery to have occurred once the service has been provided. We use objective evidence of fair value to allocate revenue to elements in multiple element arrangements and recognize revenue when the criteria for revenue recognition have been met for each element. In the absence of objective evidence of fair value of a delivered element, we allocate revenue to the fair value of the undelivered elements and the residual revenue to the delivered elements. The price charged when an element is sold separately generally determines fair value.

When the arrangement with the customer includes future obligations or obtaining customer acceptance, we recognize revenue when those obligations have been met or customer acceptance has been received. We defer revenue from services and support provided under our warranty programs and recognize it on a straight-line basis over the warranty period. Deferred revenue represents amounts received from customers in advance of services and support to be provided and amounts received prior to customer acceptance. Provisions are recorded at the time of sale for estimated product returns, standard warranty obligations, and customer support.

Off-Balance Sheet Arrangements

As of March 31, 2004, we did not have any off-balance sheet arrangements that have or are reasonably likely to have a material effect on our current or future financial condition, revenues or expenses, results of operations, liquidity, or capital resources.

Contractual Obligations

During the three months ended March 31, 2004, there were no material changes outside the ordinary course of our business in long-term debt obligations, capital lease obligations, operating lease obligations, purchase obligations, or other long-term liabilities reflected on our condensed consolidated balance sheet.

Risk Factors Affecting Future Operating Results

Quarterly Fluctuations—Because our quarterly operating results have fluctuated significantly in the past and are likely to fluctuate significantly in the future, our stock price may decline and may be volatile.

In the past, we have experienced significant fluctuations in our quarterly results due to a number of factors. In the future, our quarterly operating results may fluctuate significantly and may be difficult to predict, given the nature of our business. Many factors could cause our operating results to fluctuate from quarter to quarter, including the following:

- the size and timing of orders from our customers, which may be exacerbated by the increased length and unpredictability of our customers' buying patterns and limitations on our ability to ship these orders on a timely basis;
- the degree to which our customers have allocated and spent their yearly budgets;
- the uneven pace of technological innovation, the development of products responding to these technological innovations by us and our competitors, and customer acceptance of these products and innovations;
- the varied degree of price, product, and technology competition, and our customers' and competitors' responses to these changes;
- the relative percentages of our products sold domestically and internationally;
- the mix of the products we sell and the varied margins associated with these products;
- the timing of our customers' budget processes; and
- economic downturns reducing demand for telecommunication and cable equipment and services.

The factors listed above may affect our business and stock price in several ways. Given our high fixed costs from overhead, research and development, and advertising and marketing, and other activities necessary to run our business, if our net sales are below our expectations in any quarter, we may not be able to adjust spending accordingly. For example, during 2002, our net sales declined 31% from 2001, but our operating expenses only declined 13%, mainly because of

the relatively high fixed costs in our operations. Our stock price may decline and may be volatile, particularly if public market analysts and investors perceive the factors listed above to exist. Furthermore, the above factors, taken together may make it more difficult for us to issue additional equity in the future or raise debt financing to fund future acquisitions and accelerate growth.

Reduced Sales—Our sales have declined from three years ago and we are experiencing difficulty predicting future operating results.

During the last two quarters, our sales have increased over the same quarters in the preceding years. However, because of unfavorable economic and market conditions over the last three years, our quarterly sales have generally declined or been flat since the beginning of 2001, and we are still unable to predict future sales accurately and are currently unable to provide long-term guidance for future financial performance. The conditions contributing to this difficulty include the following:

- uncertainty regarding the capital spending plans of the major telecommunications and cable carriers upon whom we depend for sales;
- the telecommunications and cable carriers' current limited access to capital required for expansion;
- more limited near-term sales visibility; and
- general market and economic uncertainty.

Based on these and other factors, many of our major customers have reduced, modified, cancelled, or rescheduled orders for our products and have expressed uncertainty as to their future requirements.

Economic Downturn—Our operating results and financial condition could continue to be harmed if the telecommunications and cable broadband industries remain over supplied.

The economic downturn in the telecommunications and cable broadband industries has been characterized by diminished product demand, excess manufacturing capacity, and the increasing erosion of average selling prices. The downturn has adversely affected the businesses and cash flows of many of our customers and has even caused some of them to file for bankruptcy. We are uncertain how long the current downturn will last. Continuation of the downturn or any further decline in our customers' markets or in general economic conditions would likely result in a further reduction in demand for our products and services and also would further limit our customers' ability to pay for the products that they buy from us. All of these circumstances could harm our consolidated financial position, results of operations, cash flows, and stock price and could hinder our ability to reach our goals for restoring long-term profitability and growth.

Long-term Impact of Cost Controls—The actions we have taken and may take in response to the slowdown in demand for our products and services could have long-term adverse effects on our business.

Over the past three years, our business generally has experienced lower revenues due to decreased or cancelled customer orders. To scale back our operations and to reduce our expenses in response to this decreased demand for our products and services and lower revenue, we have reduced portions of our workforce, restricted hiring, reduced most employee salaries, restricted pay increases, and reduced discretionary spending.

There are several risks inherent in our efforts to lower our cost structure. These include the risk that we will not be able to reduce expenditures quickly enough and maintain them at a level necessary to restore profitability and that we may have to undertake further restructuring initiatives that would entail additional charges. In addition, there is the risk that cost-cutting initiatives will impair our future ability to develop and market products effectively, to manage and control our business, and to remain competitive. Each of the above measures could have long-term effects on our business by reducing our pool of employee talent, decreasing or slowing improvements in our products, making it more difficult for us to respond to customers, limiting our ability to increase production quickly if and when the demand for our products increases, and limiting our ability to hire and retain key personnel. These circumstances could cause our earnings to be lower than they otherwise might be.

Dependence on Wireline Access Products—A significant portion of our sales have been from our wireline access products, which makes our future sales and overall business vulnerable to product obsolescence and technological change.

Sales of our DSL and other wireline access products represented approximately 52% of our net sales during the first three months of 2004 and 44% during the full year 2003. Currently, our DSL products are primarily used by a limited number of incumbent local exchange carriers, including the regional Bell operating companies, and competitive local exchange carriers who offer DSL services. A competitive local exchange carrier is a company that, following the Telecommunications Act of 1996, is authorized to compete in a local communications services market. These parties, and other Internet service providers and users, are continuously evaluating alternative high-speed data access technologies, including cable modems, fiber optics, wireless technology, and satellite technologies, and may at any time adopt these competing technologies. These competing technologies may ultimately prove to be superior to DSL services and reduce or eliminate the demand for our DSL products.

Manufacturing Capacity—If demand for our products does not match our manufacturing capacity, our earnings may suffer.

Because we cannot immediately adapt our production capacity and related cost structures to rapidly changing market conditions, when demand does not meet our expectations, our manufacturing capacity exceeds our production requirements, and profitability may decline. Conversely, if during a market upturn we cannot increase our manufacturing capacity to meet product demand, we will not be able to fulfill orders in a timely manner, which in turn may have a negative effect on our earnings and overall business.

Risks of the Telecommunications Industry—We face several risks related to the telecommunications industry, including the possible effects of its unpredictable growth or decline, the possible effects of consolidation among our principal customers, and the risk that deregulation will slow.

After the passage of the Telecommunications Act of 1996, the telecommunications industry experienced rapid growth. The growth led to great innovations in technology, intense competition, short product life cycles, and, to some extent, regulatory uncertainty inside and outside the United States. However, the course of the development of the telecommunications industry is difficult to predict. Companies operating in this industry have a difficult time forecasting future trends and developments and forecasting customer acceptance of competing technologies. One possible effect of this uncertainty is that there is, and may continue to be, a delay or a reduction in these companies' investment in their business and purchase of related equipment, such as our products, and a reduction in their and our access to capital. In addition, deregulation may result in a delay or a reduction in the procurement cycle because of the general uncertainty involved with the transition period of businesses.

The growth that occurred after the passage of the Telecommunications Act of 1996 has slowed dramatically, and it is unknown whether or when it will resume. This slowdown has resulted in reduced investment in the telecommunications industry in general and delayed purchase orders for service verification equipment, including our products. It is not possible to predict whether this slowdown will be temporary or sustained.

In addition, the telecommunications industry has been experiencing consolidation among its primary participants, such as incumbent local exchange carriers and competitive local exchange carriers, several of whom are our primary customers. For example, in recent years, GTE and Bell Atlantic, both of which were customers of ours, merged to create Verizon Communications, Inc. Continued consolidation may cause delay or cancellation of orders for our products. The consolidation of our customers will likely provide them with greater negotiating leverage with us and may lead them to pressure us to lower the prices of our products.

Cable Broadband Industry Health—Many of the major companies in the cable broadband industry have debt and profitability problems, which are expected to negatively impact our cable equipment sales.

The cable broadband industry has taken on significant debt as companies aggressively consolidated and built up impressive new digital networks to allow them to provide better picture quality, internet access, and voice telephony, and profits have declined during the last year within the industry. As a result, most cable companies expect to continue reducing their capital expenditures and/or hiring, both of which could adversely impact our cable business more than we now expect. During 2003, we saw evidence of such a slowdown, as our sales of cable broadband products decreased \$3.5 million, or 19%, from 2002 levels.

Customer Concentration—A limited number of customers account for a high percentage of our net sales, and any adverse factor affecting these customers or our relationship with these customers could cause our net sales to decrease.

Our customer base is concentrated, and a relatively small number of companies have accounted for a large percentage of our net sales. Net sales from our top five customers represented approximately 35% of total net sales in the first three months of 2004 and 36% in the full year 2003. In general, our customers are not subject to long-term supply contracts with us and are not obligated to purchase a specific amount of products from us or to provide us with binding forecasts of purchases for any period.

The loss of a major customer or the reduction, delay, or cancellation of orders from one or more of our significant customers could cause our net sales and, therefore, profits to decline. In addition, many of our customers are able to exert substantial negotiating leverage over us. As a result, they may cause us to lower our prices for them, and they may successfully negotiate other terms and provisions that may negatively affect our business and profits.

Goodwill Valuation—Our financial results could be materially and adversely affected if it is determined that the book value of goodwill is higher than fair value.

Our balance sheet at March 31, 2004 includes an amount designated as "goodwill" that represents approximately 12% of assets and 14% of stockholders' equity. Goodwill arises when an acquirer pays more for a business than the fair value of the acquired tangible and separately measurable intangible net assets. Under accounting pronouncement SFAS No. 142, *Goodwill and Other Intangible Assets*, beginning in January 2002, the amortization of goodwill has been replaced with an "impairment test," which requires that we compare the fair value of goodwill to its book value at least annually, and more frequently if circumstances indicate a possible impairment.

The impairment testing is based on a market capitalization analysis. Accordingly, if our market capitalization were to diminish significantly, the book value of goodwill could be higher than the fair value, and we would need to record a non-cash impairment charge for the difference, which, depending on the amount, could materially and adversely affect our net income or loss and earnings per share.

Product Development—If we are unable to develop new products successfully and enhance our existing products, our future success may be threatened.

The market for our products is characterized by rapid technological advances, changes in customer requirements and preferences, evolving industry and customer-specific protocol standards, and frequent new product enhancements and introductions. Our existing products and our products currently under development could be rendered obsolete by the introduction of products involving competing technologies, by the evolution of alternative technologies or new industry protocol standards, or by rival products of our competitors. These market conditions are more complex and challenging because of the high degree to which the telecommunications industry is fragmented.

We believe our future success will depend, in part, upon our ability, on a timely and cost-effective basis, to continue to do the following:

- anticipate and respond to varied and rapidly changing customer preferences and requirements, a process made more challenging by our customers' buying patterns;
- anticipate and develop new products and solutions for networks based on emerging technologies, such as the
 asynchronous transfer mode protocol that packs digital information into cells to be routed across a network, and
 internet telephony, which comprises voice, video, image, and data across the internet, that are likely to be
 characterized by continuing technological developments, evolving industry standards, and changing customer
 requirements;
- invest in research and development to enhance our existing products and to introduce new verification and diagnostic products for the telecommunications, internet, cable network, and other markets; and
- support our products by investing in effective advertising, marketing, and customer support.

We cannot ensure that we will accomplish these objectives, and our failure to do so could have a material adverse impact on our market share, business, and financial results.

Furthermore, our percentage of net sales devoted to research and development may be considered high for our level of sales. If these efforts do not result in the development of products that generate strong sales for us or if we do not continue to reduce these expenditures, our profit levels will not return to their desired levels. If we reduce this spending, we may not be able to develop needed new products, which could negatively impact our sources of new revenues.

Sales Implementation Cycles—The length and unpredictability of the sales and implementation cycles for our products makes it difficult to forecast revenues.

Sales of our products often entail an extended decision-making process on the part of prospective customers. We frequently experience delays following initial contact with a prospective customer and expend substantial funds and management effort pursuing these sales. Our ability to forecast the timing and amount of specific sales is therefore limited. As a result, the uneven buying patterns of our customers may cause fluctuations in our operating results, which could cause our stock price to decline.

Other sources of delays that lead to long sales cycles, or even a sales loss, include current and potential customers' internal budgeting procedures, internal approval and contracting procedures, procurement practices, and testing and acceptance processes. Recently, our customers' budgeting procedures have lengthened. The sales cycle for larger deployment now typically ranges from six to twenty-four months. The deferral or loss of one or more significant sales could significantly affect our operating results, especially if there are significant selling and marketing expenses associated with the deferred or lost sales.

Managing Growth and Slowdowns—We may have difficulty managing expansions and contractions in our operations, which could reduce our chances of maintaining or restoring our profitability.

We experienced rapid growth in revenues and in our business during 1999 and 2000 followed by significant slowdowns in 2001, 2002, and 2003 that have placed, and may continue to place, a significant strain on our management and operations. For example, our revenues increased to \$113.5 million in 2000 from \$61.5 million in 1999. Then revenues fell to \$79.1 million in 2001, to \$54.3 million in 2002, and then increased only slightly to \$54.9 million in 2003. As a result of our historical growth and potential future growth or slowdowns, we face several risks, including the following:

- the need to improve our operational, financial, management, informational, and control systems;
- the need to hire, train, and retain highly skilled personnel; and
- the challenge to manage expense reductions without impacting development strategies or our long-term goals.

We cannot ensure that we will be able to manage growth or slowdowns successfully or profitably.

Acquisitions—We have acquired several companies and lines of business, and we may pursue additional acquisitions in the future. These activities involve numerous risks, including the use of cash, acquired intangible assets, and the diversion of management attention.

We have acquired multiple companies and lines of business. As a result of these acquisitions, we face numerous risks, including the following:

- integrating the existing management, sales force, technicians, and other personnel into one culture and business;
- integrating manufacturing, administrative, and management information and other control systems into our existing systems;
- developing and implementing an integrated business strategy over what had previously been independent companies; and
- developing compatible or complementary products and technologies from previously independent operations.

The risks stated above are made more difficult because most of the companies we have acquired are located outside of the United States. In addition, if we make future acquisitions, these risks will be exacerbated by the need to integrate additional operations at a time when we may not have fully integrated all of our previous acquisitions.

If we pursue additional acquisitions, we will face similar risks as those outlined above and additional risks, including the following:

- the diversion of our management's attention and the expense of identifying and pursuing suitable acquisition candidates, whether or not consummated;
- negotiating and closing these transactions;
- the possible need to fund these acquisitions by dilutive issuances of equity securities or by incurring debt; and
- the potential negative effect on our financial statements from an increase in other intangibles, write-off of research and development costs, and high costs and expenses from completing acquisitions.

We cannot ensure that we will locate suitable acquisition candidates or that, if we do, we will be able to acquire them and then integrate them effectively, efficiently, and successfully into our business.

Competition—Competition could reduce our market share and decrease our net sales.

The market for our products is fragmented and intensely competitive, both inside and outside the United States, and is subject to rapid technological change, evolving industry standards, regulatory developments, and varied and changing customer preferences and requirements. We compete with a number of United States and international suppliers that vary in size and in the scope and breadth of the products and services that they offer.

The following table sets forth our principal competitors in each of our product categories.

Product Category	Principal Competitors
Wireline Access	3M Dynatel; Acterna LLC; Agilent Technologies, Inc.; Consultronics, Ltd.; Fluke Corporation; Trend Communications
Fiber Optics	Acterna LLC; Agilent Technologies, Inc.; Digital Lightwave, Inc.; Exfo Electro-Optical Engineering Inc.; NetTest; Trend Communications
Cable Broadband	Acterna LLC; Agilent Technologies, Inc.; Trilithic, Inc.
Protocol	Agilent Technologies, Inc.; Inet Technologies, Inc.; NetTest

Many of these competitors have longer operating histories, larger installed customer bases, longer relationships with customers, wider name recognition and product offerings, and greater financial, technical, marketing, customer service, and other resources than we have.

We expect that as our industry and markets evolve new competitors or alliances among competitors with existing and new technologies may emerge and acquire significant market share. We anticipate that competition in our markets will increase, and we will face continued threats to our market share and price pressure on our products. Also, over time, our profitability, if any, may decrease. In addition, it is difficult to assess accurately the market share of our products because of the high degree of fragmentation in the market for service verification equipment. As a result, it may be difficult for us to forecast accurately trends in the market, which of our products will be the most competitive over the longer term, and therefore, what is the best use of our cash, human, and other forms of capital.

Dependence on Key Employees—If one or more of our senior managers were to leave, we could experience difficulty in replacing them and our operating results could suffer.

Our success depends to a significant extent upon the continued service and performance of a relatively small number of key senior management, technical, sales, and marketing personnel. In particular, the loss of either of our two founders, Paul Ker-Chin Chang or Paul A. Marshall, would likely harm our business. Neither of these individuals is bound by an employment agreement with us, and we do not carry key man life insurance. If any of our senior managers were to leave, we would need to devote substantial resources and management attention to replace them. As a result, management attention may be diverted from managing our business, and we may need to pay higher compensation to replace these employees.

Dependence on Sole and Single Source Suppliers—Because we depend on a limited number of suppliers and some sole and single source suppliers that are not bound by long-term contracts, our future supply of parts is uncertain.

We purchase many key parts, such as microprocessors, field programmable gate arrays, bus interface chips, optical components, and oscillators, from a single source or sole suppliers, and we license certain software from third parties. We rely exclusively on third-party subcontractors to manufacture some sub-assemblies, and we have retained, from time to time, third party design services in the development of our products. We do not have long-term supply agreements with these vendors. In general, we make advance purchases of some products and components to ensure an adequate supply. In the past, we have experienced supply problems as a result of financial or operating difficulties of our suppliers, shortages, and discontinuations resulting from component obsolescence or other shortages or allocations by suppliers. Our reliance on these third parties involves a number of risks, including the following:

- the unavailability of critical products and components on a timely basis, on commercially reasonable terms, or at all;
- the unavailability of products or software licenses, resulting in the need to qualify new or alternative products or develop or license new software for our use and/or to reconfigure our products and manufacturing process, which could be lengthy and expensive;
- the likelihood that, if these products are not available, we would suffer an interruption in the manufacture and shipment of our products until the products or alternatives become available;
- reduced control over product quality and cost, risks that are exacerbated by the need to respond, at times, to unanticipated changes and increases in customer orders;
- the unavailability of, or interruption in, access to some process technologies; and
- exposure to the financial problems and stability of our suppliers.

In addition, the purchase of these components on a sole source basis subjects us to risks of price increases and potential quality assurance problems. This dependence magnifies the risk that we may not be able to ship our products on a timely basis to satisfy customers' orders. We cannot ensure that one or more of these factors will not cause delays or reductions in product shipments or increases in product costs, which in turn could have a material adverse effect on our business.

Risks of International Operations—Our plan to expand sales in international markets could lead to higher operating expenses and may subject us to unpredictable regulatory and political systems.

Sales to customers located outside of the United States represented 50% of our net sales during the first three months of 2004, 39% of our net sales during the full year 2003, 30% during the full year 2002, and 38% during the full year 2001, and we expect international revenues to continue to account for a significant percentage of net sales for the foreseeable future. In addition, an important part of our strategy calls for further expansion into international markets. As a result, we will face various risks relating to our international operations, including the following:

- potentially higher operating expenses, resulting from the establishment of international offices, the hiring of additional and local personnel, and the localization and marketing of products for particular countries' technologies;
- the need to establish relationships with government-owned or subsidized telecommunications providers and with additional distributors;
- fluctuations in foreign currency exchange rates and the risks of using hedging strategies to minimize our exposure to these fluctuations:
- potentially adverse tax consequences related to acquisitions and operations, including the ability to claim goodwill deductions and a foreign tax credit against U.S. federal income taxes; and
- possible disruptions to our customers, sales channels, sources of supply, or production facilities due to wars, terrorist acts, acts of protest or civil disobedience, or other conflicts between or within various nations and due to variations in crime rates and the rule of law between nations.

We cannot ensure that one or more of these factors will not materially and adversely affect our ability to expand into international markets or our revenues and profits.

Operations in Taiwan—We rely on our subsidiary in Taiwan to manufacture a substantial portion of our products, and our reputation and results of operations could be adversely affected if this subsidiary does not perform as we expect.

We produce a substantial portion of our products at our subsidiary in Taiwan and plan to concentrate more of our production there in the future. We depend on our subsidiary to produce a sufficient volume of our products in a timely fashion and at satisfactory quality levels. If we fail to manage our subsidiary so that it produces quality products on time and in sufficient quantities, our reputation and results of operations could suffer. In addition, we rely on our Taiwan subsidiary to place orders with suppliers for the components they need to manufacture our products. If they fail to place timely and sufficient orders with their suppliers, our results of operations could suffer.

The cost, quality, and availability of our Taiwan operation is essential to the successful production and sale of our products. Our increasing reliance on this foreign subsidiary for manufacturing exposes us to risks that are not under our immediate control and which could negatively impact our results of operations. For example, a recurrence of the Severe Acute Respiratory Syndrome (SARS) outbreak that occurred in Asia last year could result in quarantines or closure of our manufacturing operation or its suppliers. In addition, transportation delays and interruptions, political and economic disruptions, the imposition of tariffs, quotas, or other import or export controls, changes in governmental policies and regulations, and natural disasters could also adversely impact our Taiwan operation and negatively impact our results of operations. See "Risk Factors Affecting Future Operating Results—Dependence on Sole and Single Source Suppliers and —Risks of International Operations" for a discussion of other risks associated with concentrating production activities at a facility that is outside the United States.

Concentration of Control—Our executive officers and directors retain significant control over us, which allows them to decide the outcome of matters submitted to stockholders for approval. This influence may not be beneficial to all stockholders.

As of March 31, 2004, Paul Ker-Chin Chang, Paul A. Marshall, and Robert C. Pfeiffer beneficially owned approximately 25%, 24%, and 13%, respectively, of our outstanding shares of common stock. Consequently, these three individuals, control approximately 62% of our outstanding shares of common stock and to the extent that they act together would be able to control the election of our directors and the approval of significant corporate transactions that must be submitted

to a vote of stockholders. In addition, Mr. Chang, Mr. Marshall, and Mr. Pfeiffer constitute three of the six members of the board of directors and have significant influence in directing the actions taken by the board. The interests of these persons may conflict with the interests of other stockholders, and the actions they take or approve may be contrary to those desired by other stockholders. This concentration of ownership and control of the management and affairs of our company may also have the effect of delaying or preventing a change in control of our company that other stockholders may consider desirable.

Potential Product Liability—Our products are complex, and our failure to detect errors and defects may subject us to costly repairs and product returns under warranty and product liability litigation.

Our products are complex and may contain undetected defects or errors when first introduced or as enhancements are released. These errors may occur despite our testing and may not be discovered until after a product has been shipped and used by our customers. Many of the products that we ship contain known imperfections that we consider to be insignificant at the time of shipment. We may misjudge the seriousness of a product imperfection and allow it to be shipped to our customers. These risks are compounded by the fact that we offer many products, with multiple hardware and software modifications, which makes it more difficult to ensure high standards of quality control in our manufacturing process. The existence of these errors or defects could result in costly repairs and/or returns of products under warranty and, more generally, in delayed market acceptance of the product or damage to our reputation and business.

In addition, the terms of our customer agreements and purchase orders which provide us with protection against unwarranted claims of product defects and errors may not protect us adequately from unwarranted claims against us, unfair verdicts if a claim were to go to trial, settlement of these kinds of claims, or future regulation or laws regarding our products. Our defense against such claims in the future, regardless of their merit, could result in substantial expense to us, diversion of management time and attention, and damage to our business reputation and our ability to retain existing customers or attract new customers.

Intellectual Property Risks—Policing any unauthorized use of our intellectual property by third parties and defending any intellectual property infringement claims against us could be expensive and disrupt our business.

Our intellectual property and proprietary technology is an important part of our business, and we depend on the development and use of various forms of intellectual property and proprietary technology. As a result, we are subject to several related risks, including the risks of unauthorized use of our intellectual property and the costs of protecting our intellectual property.

Much of our intellectual property and proprietary technology is not protected by patents. If unauthorized persons were to copy, obtain, or otherwise misappropriate our intellectual property or proprietary technology without our approval, the value of our investment in research and development would decline, our reputation and brand could be diminished, and we would likely suffer a decline in revenue. We believe these risks, which are present in any business in which intellectual property and proprietary technology play an important role, are exacerbated by the difficulty in finding unauthorized use of intellectual property in our business, the increasing incidence of patent infringement in our industry in general, and the difficulty of enforcing intellectual property rights in some foreign countries.

In addition, litigation has in the past been, and may in the future be, necessary to enforce our intellectual property rights. This kind of litigation is time-consuming and expensive to prosecute or resolve, and results in substantial diversion of management resources. We cannot ensure that we will be successful in that litigation, that our intellectual property rights will be held valid and enforceable in any litigation, or that we will otherwise be able to protect our intellectual property and proprietary technology. See the discussion of our litigation in the "Overview" section of this MD&A.

In the future, we may receive notices from holders of patents that raise issues as to possible infringement by our products. As the number of telecommunications test, measurement, and network management products increases and the functionality of these products further overlap, we believe that we may become subject to allegations of infringement given the nature of the telecommunications industry and the high incidence of these kinds of claims. Questions of infringement and the validity of patents in the field of telecommunications technologies involve highly technical and

subjective analyses. These kinds of proceedings are time consuming and expensive to defend or resolve, result in substantial diversion of management resources, cause product shipment delays, and could force us to enter into royalty or license agreements rather than dispute the merits of the proceeding initiated against us.

Anti-takeover Provisions—Anti-takeover provisions in our charter documents could prevent or delay a change of control and, as a result, negatively impact our stockholders.

Some provisions of our certificate of incorporation and bylaws may have the effect of discouraging, delaying, or preventing a change in control of our company or unsolicited acquisition proposals that a stockholder may consider favorable. These provisions provide for the following:

- authorizing the issuance of "blank check" preferred stock;
- a classified board of directors with staggered, three-year terms;
- prohibiting cumulative voting in the election of directors;
- requiring super-majority voting to effect certain amendments to our certificate of incorporation and by-laws;
- limiting the persons who may call special meetings of stockholders;
- prohibiting stockholder action by written consent; and
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholders meetings.

Some provisions of Delaware law and our stock incentive plans may also have the effect of discouraging, delaying, or preventing a change in control of our company or unsolicited acquisition proposals. These provisions also could limit the price that some investors might be willing to pay in the future for shares of our common stock.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We sell our products in North America, Asia, Latin America, Africa, the Middle East, and Europe and maintain operations in several different countries. Changes in currency exchange rates affect the valuation in our financial statements of the assets and liabilities of these operations. We also have a small amount of sales denominated in Euros and the Canadian dollar, which are also affected by changes in currency exchange rates. To hedge these risks, we have at certain times used derivative financial instruments. However, as of March 31, 2004, we had no derivative financial instruments or other foreign exchange risk hedging devices. With or without hedges, our financial results could be affected by changes in foreign currency exchange rates, although foreign exchange risks have not been material to our financial position or results of operations in the past.

We are exposed to the impact of interest rate changes and changes in the market values of our investments. Our exposure to market rate risk for changes in interest rates relates primarily to our investment portfolio. We have not held derivative financial instruments in our investment portfolio. We may invest our excess cash in depository accounts with financial institutions, in debt instruments of United States governmental agencies, and in debt instruments of high-quality corporate issuers, and, by policy, we limit the amount of credit exposure to any one issuer. We seek to protect and preserve our invested funds by limiting default, market, and reinvestment risk through portfolio diversification and review of the financial stability of the institutions with which we deposit funds and from whom we purchase debt instruments.

Investments in both fixed rate and floating rate interest earning instruments carry a degree of interest rate risk. Fixed rate securities may have their fair market value adversely impacted due to a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future investment income may fall short of expectations due to changes in interest rates, or we may suffer the loss of principal if forced to sell securities that have declined in market value due to changes in interest rates. Because our investment policy restricts us to conservative, interest-bearing investments and because our business strategy does not rely on generating material returns from our investment portfolio, we do not expect our market risk exposure on our investment portfolio to be material.

ITEM 4. CONTROLS AND PROCEDURES

The Securities and Exchange Commission defines the term "disclosure controls and procedures" to mean a company's controls and other procedures that are designed to ensure that information required to be disclosed in the reports that it files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized, and reported within the time periods specified in the Commission's rules and forms. Our Chief Executive Officer and our Acting Chief Financial Officer have concluded, based on the evaluation of the effectiveness of our disclosure controls and procedures by our management, with the participation of our Chief Executive Officer and our Acting Chief Financial Officer, as of the end of the period covered by this report, that our disclosure controls and procedures were effective for this purpose.

There was no change in our internal control over financial reporting during our first fiscal quarter of 2004 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II-OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

On March 31, 2004, Acterna, LLC filed a lawsuit against us and Consultronics, Ltd. and Consultronics, Inc. in the United States District Court for the District of Maryland. Acterna alleges that our SunSet xDSL and SunSet MTT products infringe their United States Patent Nos. 6,064,721 (the "721 patent"), 6,385,300 (the "300 patent"), and 6,590,963 (the "963 patent") and that our STT product infringes their United States Patent No. 5,511,108 (the "108 patent"). Acterna also alleges that the Consultronics CoLT 450 product infringes their '721 patent. Acterna seeks injunctive relief, unspecified damages, and attorneys' fees and costs. We believe that the lawsuit against us is without merit, and we intend to vigorously defend ourselves against the claims being made against us.

Separately on April 23, 2004, we filed a lawsuit against Acterna LLC in the United States District Court for the Northern District of California. The lawsuit alleges that Acterna's ANT-5 SDH Access Tester and its ANT-20 Advanced Network Tester infringe our United States Patent No. 5,619,489 (the "'489 patent"). We seek injunctive relief, unspecified damages, and attorneys' fees and costs. We also seek declaratory judgment that our products do not infringe the '721 patent, the '300 patent, the '963 patent, or the '108 patent; that the '721 patent, the '300 patent, the '963 patent, and the '108 patent are invalid; and that the '721 patent, the '300 patent, and the '108 patent are unenforceable. See also "Risk Factors Affecting Future Operating Results—Intellectual Property Risks."

From time to time, we may be involved in litigation or other legal proceedings, including those noted above, relating to claims arising out of our day-to-day operations or otherwise. Litigation is inherently uncertain, and we could experience unfavorable rulings. Should we experience an unfavorable ruling, there exists the possibility of a material adverse impact on our financial condition, results of operations, cash flow, or our business for the period in which the ruling occurs or future periods.

ITEM 2. CHANGES IN SECURITIES, USE OF PROCEEDS AND ISSUER PURCHASES OF EQUITY SECURITIES

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K

(a) Exhibits

Exhibit 3.1—Amended and Restated Certificate of Incorporation (Incorporated by reference from Exhibit 3.1 of Sunrise Telecom Incorporated's Report on Form 10-K dated March 16, 2001).

Exhibit 3.2—Amended and Restated Bylaws (Incorporated by reference from Exhibit 3.2 of Sunrise Telecom Incorporated's Report on Form 10-K dated March 16, 2001).

Exhibit 4.1—Specimen Stock Certificate (Incorporated by reference from Exhibit 4.1 of Registration Statement No. 333-32070).

Exhibit 10.1—Purchase and Sale Agreement and Escrow Instructions dated November 5, 1999 between Sunrise Telecom Inc. and Enzo Drive, LLC (Incorporated by reference from Exhibit 10.2 of Registration Statement No. 333-32070).

Exhibit 10.2—Form of Indemnification Agreement between Sunrise Telecom Incorporated and each of its Officers and Directors (Incorporated by reference from Exhibit 10.6 of Registration Statement No. 333-32070).*

Exhibit 10.3—2000 Stock Option Plan (Incorporated by reference from Exhibit 10.7 of Registration Statement No. 333-32070).*

Exhibit 10.4—2000 Employee Stock Purchase Plan (Incorporated by reference from Exhibit 10.8 of Registration Statement No. 333-32070).*

Exhibit 10.5—Employee Agreement dated January 8, 2001 between Avantron Technologies, Inc. and Raffaele Gerbasi and Amendment #1 dated March 12, 2002 ((Incorporated by reference from Exhibit 10.11 of Sunrise Telecom Incorporated's Report on Form 10-K dated March 15, 2002).*

Exhibit 31.1—Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

Exhibit 31.2—Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

Exhibit 32.1—Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350.

^{*} Indicates management contract or compensatory plan, contract, or arrangement.

(b) Reports on Form 8-K

On January 29, 2004, the Registrant furnished a Current Report on Form 8-K reporting earnings for the year ended December 31, 2003.**

^{**} This furnished Current Report on Form 8-K is not deemed filed or incorporated by reference into any filing.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SUNRISE TELECOM INCORPORATED (Registrant)

Date: May 13, 2004

PAUL KER-CHIN CHANG

Paul Ker-Chin Chang President and Chief Executive Officer (Principal Executive Officer)

By: /s/ PAUL A. MARSHALL

Paul A. Marshall Acting Chief Financial Officer (Principal Financial Officer)

EXHIBIT INDEX

Exhibit Number	Description
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^{*} Indicates management contract or compensatory plan, contract, or arrangement.

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO SECTION 302

I, Paul Ker-Chin Chang, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Sunrise Telecom Incorporated.
- 2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report.
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15 (e) and 15d-15 (e)) for the registrant and we have:
 - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (c) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 13, 2004

PAUL KER-CHIN CHANG

Paul Ker-Chin Chang President and Chief Executive Officer (*Principal Executive Officer*)

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO SECTION 302

I, Paul A. Marshall, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Sunrise Telecom Incorporated.
- 2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report.
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15 (e) and 15d-15 (e)) for the registrant and we have:
 - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (c) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 13, 2004

/s/ PAUL A. MARSHALL

Paul A. Marshall Acting Chief Financial Officer (Principal Financial Officer)

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350

In connection with the accompanying Form 10-Q of Sunrise Telecom Incorporated for the three-month period ended March 31, 2004, we, Paul Ker-Chin Chang, President and Chief Executive Officer, and Paul A. Marshall, Acting Chief Financial Officer, respectively, of Sunrise Telecom Incorporated, hereby certify to the best of our knowledge, that:

- such Form 10-Q for the three-month period ended March 31, 2004 fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- the information contained in such Form 10-Q for the three-month period ended March 31, 2004 fairly presents, in all material respects, the financial condition and results of operations of Sunrise Telecom Incorporated.

Date: May 13, 2004

/s/ PAUL KER-CHIN CHANG By:

> Paul Ker-Chin Chang President and Chief Executive Officer

(Principal Executive Officer)

/s/ PAUL A. MARSHALL

Paul A. Marshall **Acting Chief Financial Officer** (Principal Financial Officer)

Date: May 13, 2004